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ABSTRACT

As part of the Michigan State Board of Education's continuing activities in the planning and coordination of postsecondary education in the state, an attempt has been made to examine the question of the quality of the educational process. It was determined that a committee of the faculty of the institutions of higher education would be the best source for information regarding educational quality. From the basic framework developed by the faculty group, a series of six recommendations are suggested, including examination of applicability of the State Board of Education's six-step accountability model, expanded use of institutional role statements, use of regional and specialized accrediting agencies, student survey and follow-up studies, institutional self-evaluation, and experimentation with standardized tests. (JMF)

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Planning Necessary to Ensure That Educational Quality is Being Achieved at the Postsecondary Level

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

HE 008 356

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PLANNING NECESSARY TO
ENSURE THAT EDUCATIONAL
QUALITY IS BEING ACHIEVED
AT THE POSTSECONDARY LEVEL

PREFACE

This report is one of 20 planning documents undertaken in June of 1972 as part of the State Board of Education's continuing activities in the planning and coordination of postsecondary education in Michigan.

In recent years, the entire postsecondary structure has been subjected to increased questioning of its proper role and functioning by students, their parents, legislators and the general public. Much effort has been put forth to determine methods for measuring the value and quality of the "product," that is, the educational process. Quantitative criteria have been developed, in terms of credit hours generated, hours taught, and degrees granted, but little has been done to examine the question of quality in the educational process.

In structuring this paper, it was determined that the best source for such information was with those who were ultimately responsible for educational quality, that is, the faculty of the institutions of higher learning. Accordingly, in response to invitation by the Department of Education, three noted and respected members of the faculty of the University of Michigan, Professors Wilfred Kaplan, Frank Whitehouse, M.D., and Brymer Williams prepared the intitial draft of this paper. Their time, efforts, and professional expertise are gratefully acknowledged.

From the basic framework developed by the faculty group, a series of six recommendations are suggested, including examination of applicability of the State Board of Education's six step accountability model, expanded use of institutional role statements, use of regional and specialized

accrediting agencies, student survey and follow-up studies, institutional self-evaluation, and experimentation with standardized tests. These recommendations are presented for the careful consideration of the Executive Office, the Legislature, the higher education community, and all others interested in and concerned about the quality of our educational institutions, and the future of higher education in Michigan.

JOHN W. PORTER
Superintendent of
Public Instruction

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PART I

INTRODUCTION

a). Quality Control of Michigan Postsecondary Education.

The State of Michigan devotes a substantial portion of its annual appropriations to the support of postsecondary education in the state. In particular, the state maintains thirteen baccalaureate institutions and 29 community colleges. It is essential that the state and its citizens be well informed as to the quality of the educational program they are supporting. And maintenance and enhancement of the quality of higher education have long been recognized as vital to the well-being of the state. Recent problems of conservation of resources and protection of the environment, as well as the increasing sophistication of modern life in all aspects, place high demands on college graduates for skill, knowledge and breadth of understanding in a great variety of areas.

b). Relationship to Goals Established.

In assessing the quality of the educational program, it is essential that one compare what is being achieved and how well it is being achieved with the goals which have been set.

Such goals for the state as a whole have been formulated in the State Plan for Higher Education in Michigan (1970). These cover a broad spectrum of concerns; affecting all types of institutions. For some of the goals, such as the training of adequate numbers of specialists in various occupations, it is fairly easy to determine how well the state is meeting its objective. However, for many other goals, such as those relating to the quality of training of specialists and the quality of

education of college graduates and the availability of higher education to all those able to benefit from it, success is much more difficult to evaluate.

Furthermore, for a comprehensive view of the state's activities in higher education, one must also consider the goals of the individual institutions. Some progress has been made in formulating these as detailed in the report, Implementation of Continuous Planning and Coordination of Postsecondary Education (Michigan Department of Education), but further work is needed both to bring them up to date and to coordinate them as a group as part of the state's overall goals. For any assessment of the quality of an institution's performance, it is essential that the institution's present goals be clearly understood.

c.) Relationship to Planning Process.

Any evaluation of what an institution of higher education is now doing in relationship to its own and the state's goals must be considered a part of an overall planning process. In determining that an institution is training too many specialists of one kind and too few of another and should therefore shift emphasis from one program to another, one is making a basic planning decision about the nature of that institution. Similarly a decision that an institution has need for more or less highly trained faculty in certain areas is a planning decision.

To be most effective such planning should involve all concerned. In particular, faculty advice should be sought on the goals and needs of particular institutions. Many faculty committees have as their main concern the review and evaluation of current programs, and such committees can assist in the planning.

d). Education and Training for a Career.

In evaluating a system of higher education it is essential to keep in mind that for each individual student his program of study may be purely aimed at a specific occupation, or may be solely intended as "general" or "liberal" education, to improve his ability to function in society. The program may also be a mixture of these two aspects, not always easy to separate. Furthermore, training aimed at one specific career may also serve for other careers: for example, many trained as lawyers enter government service. It is important to have a clear understanding of how each program is functioning at a given time before determining the extent to which it is meeting needs in specific categories.

A related concern is the extent to which students are being educated for careers in Michigan. Here again there is great variability and current data is needed to give a clear understanding of what is happening in each field.

PART II

PRESENT PROCEDURES FOR MEASURING AND MAINTAINING QUALITY

a). Preparation of Governor's Budget.

In preparing its annual proposed budget, the Governor's Budget Office has made certain reviews of institutional programs and future plans, with certain conclusions reached as to quality. These conclusions are generally not explicitly stated but are reflected in the budget itself. In the past few years, the process has been greatly expanded in the form of PBES (Program Budget Evaluation System). For this much data has been collected about institutions, their present programs, enrollments, staff and facilities, and about projections of programs and needs for five years in the future. In theory, all this data should be treated systematically in order to obtain quantitative answers regarding how well the institutions are meeting their stated objectives and regarding how well these objectives are related to needs of the state. However, the complexity of postsecondary education, the immense variety of programs and the great difficulty in defining suitable "impact measures" of the present educational processes has led to considerable difficulty in reaching significant conclusions from the data. The budget has in fact been based on a minimum amount of data (mainly expected enrollments in programs at various levels) and on qualitative evaluation of the need and desirability of funding for particular programs at each institution.

b). State Board of Education Evaluation of New Programs.

The present Constitution of Michigan assigns to the State Board of Education responsibility for planning and coordination of higher education, but reserves to the baccalaureate institutions control over expenditure

of funds. The Board has interpreted its responsibility to include review of all proposals for major new programs, such as advanced degree programs. There is some question as to whether Board approval is required before the Legislature can fund such programs, and this question may be resolved by a lawsuit presently before the Supreme Court of Michigan.

In any case, the Board has in a number of cases evaluated particular program proposals, and its advice has been transmitted to the Legislature with significant influence on final action. The evaluations have been carried out by teams of experts recruited for the individual cases, in some cases including professionals from outside the state.

Although the Board has reached its conclusions on the basis of such expertise, it has been hampered in that the evaluations were only for individual programs among the vast array of programs offered in the state; and that no overall evaluation of programs or institutions was available as background for proper assessment of the individual programs.

c). Legislature's Review of Programs.

In developing its annual appropriations for higher education, the Legislature has relied on the Governor's budget, advice of the State Board of Education and on its own analysis of institutional programs and needs. The latter has been based on data requested by the Legislature from the institutions, an analysis of this data and of institutional operations by staff of the House and Senate Fiscal Agencies, and on hearings before Legislative committees.

The Legislative evaluations have of necessity been focused mainly on immediate needs and fiscal realities. What is needed is a broad view of higher education in the state, its achievements, goals and anticipated

needs in years to come. Changing personnel in the Legislature and on its staff and shifting political influences have also hampered the process. Furthermore, assessment of particular educational needs has often required expertise in specialized areas not available to the Legislature when needed.

d). Accreditation.

Two types of accreditation are generally recognized by institutions and agencies today: institutional accreditation, which is carried out by the regional accrediting associations (North Centeral Association for the state of Michigan), and specialized or program accreditation, which focuses on the quality of individual academic programs.

Institutional accreditation is a nongovernmental, voluntary means for institutions to set the characteristics, the qualities, and the manner by which those institutions seeking and holding membership are judged. By providing a means of assessment which encourages institutional improvement and response to the needs of an institution's constitutencies, accreditation serves the public interest.[1]

Specialized, or program, accreditation covers specific academic programs in fields such as medicine, nursing, dentistry, and other health-related professions, business, engineering, forestry, journalism, law, music, social work, teacher education, and veterinary medicine, among others. Relatively rigid and explicit guidelines are provided for approval of programs, and in many cases specialized accreditation is related to licensure in a specific field or occupation.

The process of accreditation and criteria for approval by state agencies, the regional accrediting association, and the specialized

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1. North Central Association, Interim Handbook on Accreditation, 1974.

accreditation bodies often bear little relationship to one another, and approval by one agency will not necessarily result in approval by any of the other accrediting bodies. Likewise, the failure of an institution to gain accreditation of any particular type is not necessarily an indicator of overall quality, or lack of capability to achieve accreditation.

3). Review by Federal Government.

The federal government has first of all systematically gathered data about the population being educated (through the census) and about actual patterns of enrollment and degrees granted in institutions and programs by means of the Higher Education General Information Survey (HEGIS).

Furthermore the federal government has provided funds to states and to institutions for a great variety of purposes: especially, construction of buildings, student assistance, research projects. In all these cases the requests for funds have been accompanied by reports on program and needs and, in deciding whether to fund particular programs, federal agencies have made evaluations of institutional operations and of the needs in question. These isolated evaluations have for the most part remained separate, and there is at present no process for general review by the federal government of statewide systems of higher education.

There are indications that such reviews may be carried out by, or at the request of the federal government in the near future. In particular, the "1202 Commissions" of the Higher Education Act of 1972 are expected to make such reviews a basis for federal funding.

f). AAUP Salary Ratings.

The American Association of University Professors has for some years published annual tables of salaries of professors at American colleges

and universities and has assigned ratings to them on the basis of its own standards. These salary ratings, despite their limited scope, provide certain indirect indices of quality at Michigan institutions.

PART III

ASPECTS OF EXCELLENCE

a). Quality of Faculty.

The faculty of an institution is the core of the instructional program, but it also serves in many other ways to enable the institution to define and achieve its goals: by continually redesigning the curriculum as appropriate, by participating in administrative tasks, by counselling students, by guiding development of the library collection, and by creating new knowledge. For the institutions with graduate and graduate-professional programs, the faculty must remain at the forefront of research and be able to guide advanced students in research. In evaluating an institution it is therefore essential that one consider the quality of the faculty and the nature of its various responses for its various responsibilities. There are no standard ways of measuring quantitatively the faculty's ability to carry out its responsibilities.

b). Effectiveness of Instructional Program.

Apart from the excellence of faculty as teachers, one may ask how well in fact the various courses succeed in their objectives of imparting knowledge, improving skills and depth of understanding. One might try to measure this by testing students upon entering and upon completing a program, but a systematic and meaningful use of such tests would be difficult to achieve. The National Board of Medical Examiners has been used, for example, as one indicator of success in medical education.

c). Overall Strength of Program.

For each individual area of study, the institution's catalogue indicates the nature of course offerings: their variety and extent,

the depth to which they proceed in the subject area. The catalogue information does not, however, tell the whole story. Not all courses are given each year, and courses do not always match their catalogue descriptions. Furthermore, unless the breadth and depth of knowledge of the instructors is sufficient, the courses will not in fact achieve the catalogue objectives. Other factors also influence the strength of the program: extent of library and other learning resources, extent of activities such as special lectures and demonstrations, and overall atmosphere of enthusiasm for the subjects studied.

d). Success in Preparing Students for Careers.

Many programs at colleges and universities have sharply defined objectives for students for particular careers. Here one can ask some very specific questions: Of those who effectively enter a program (after an initial screening period), how many complete it and how many are admitted to an occupation in the career field; furthermore, how well prepared are the graduates for the career and how well do they perform. Also, what is the relationship between college preparation and advanced educational and career programs.

e). Appropriateness of Programs in Coverage and Scale.

Here one can examine the programs from various levels: those of the state (and nation), those of the institutions, those of the institutional division down to the department. At each level there should be some formulation of desirable programs and their size, frequently reevaluated. Against such a formulation one can then ask at each level whether the extant programs in each are inadequate, adequate or excessive. An accurate formulation of needs is especially difficult,

especially since education is preparation for a future, several years ahead. Furthermore, as pointed out in 1.d) above, the relationship between programs and needs is by no means simple.

Whenever it is found that a particular program is either inadequately covered or too fully covered across the state, one is faced with a difficult question of how the imbalance should best be corrected. This must take into account the effect of the size of the program on the rest of the institution and in how expansion or contraction of activities fits in with the goals of the institution.

f). Strength of Research.

Research is carried on at institutions sponsored by outside agencies, which may be governmental or private, and as individual unsponsored efforts of faculty members (and advanced students). Although the benefits of research to the state and nation and to institutional programs are well recognized, it is given variable consideration in the state appropriations process. Nevertheless, the strength of research programs should be given significant attention in any evaluation of institutional quality.

Evaluation of the research at a particular institution can be carried out in a rough way by ascertaining the number and scale of sponsored projects and by a review of research publications by institutional members. A more refined evaluation would require appraisal by experts of the research achievements.

g). Public Service.

Michigan colleges and universities provide a number of services to this nation and the state and its citizens outside of the normal pattern

of teaching and research. Many staff members are called on for advice, many departments and research institutes are invaluable resources for information and advice. Many special lecture series and "institutes" are conducted which are available to and are of benefit to the public and to city, country and state governments. The extent and quality of such services should be included in any overall evaluation of institutional quality.

h). Library and Related Facilities.

Each institution has a library, perhaps separated to some extent by subject area. The size and relative completeness of the collections in various areas are valuable indices of excellence of the institution. However, the collection must be considered in relation to the programs offered. Large collections in areas of little interest at a college are of no special benefit.

Information is also stored in many other forms: in particular, in computer files, and in archives. These can be considered as extensions of libraries, and can be evaluated in similar fashion.

i). Physical Plant.

In evaluating college programs it is essential to consider the existing buildings and equipment used to implement them and to assess their adequacy in size, floor area, location, convenience, and obsolescence.

j). Administration.

The size of the various administrative departments as related to their responsibilities, the skill of administrative staff, and how well all aspects of administration are carried out at an institution are

important features to be considered in an overall evaluation. Decision-making at a modern college or university necessarily involves faculty at many points and can and does involve students, at least in providing expressions of opinion; the effectiveness and extent of such participation should also be given appropriate consideration.

k). Overall Atmosphere.

A college or university may have an excellent staff, a fine library, excellent buildings and other facilities, and yet somehow be unsuccessful in providing the stimulation and enthusiasm so essential to successful education. The atmosphere conducive to such enthusiasm is not hard to recognize when it is present, but the reasons for its presence are intangible and may be difficult to pinpoint: sometimes leadership of a president, a dean, one or more professors, or of students can spark the atmosphere; sometimes it is a tradition of overwhelming force.

PART IV

DESIRABLE CHARACTERISTICS OF AN EVALUATION PROCEDURE

a). Completeness.

The evaluation should be comprehensive. No essential component of institutional resources or operations should be ignored. However, detail below a certain level should be omitted, to avoid the confusion of too much information. How the line is drawn, between what is essential and what is not, is a difficult decision and can be improved with experience.

b). Objectivity.

As far as possible evaluation should be made by objective, impersonal processes or by experts with no self-interest in the institutions being evaluated or in the results of the evaluation. The desire for objectivity has often led to numerical, statistical processes and these can be helpful, but there is a danger of attributing too much significance to them because of their objectivity. The complexity of higher education makes it necessary to have all statistics interpreted as far as possible by experts before conclusions can be drawn.

c). Accuracy.

It goes without saying that numerical and factual data about an institution should be as accurate as possible. However, the same applies also to judgments rendered as to relative strengths of various programs and to measures, whether qualitative or quantitative, of excellence.

d). Ease of Execution.

Many proposed and functioning methods of evaluation demand exceptional efforts on the part of institutional staff, in gathering

and analyzing data, in preparing reports for outside evaluating agencies. It should be a guiding principle that these efforts should be reduced to the lowest possible level consistent with the goal of providing a meaningful evaluation.

e). Significance.

As noted above, numerical data about operations may have far less significance than one might mechanically attribute to them. For example, headcounts or credit hours alone give a very misleading indication of teaching effort. What is essential in any evaluation procedure is that both factual data and conclusions therefrom be as meaningful as possible.

f). Understandability.

Since the results of evaluations should be widely usable: by the institutions and their staffs, by the State Board of Education and its staff, by the Governor's budget office, by the Legislature, they should be presented in a form and in a language easily understandable by all.

g). Ease of Keeping Up-to-Date.

While some aspects of higher education change very slowly (for example, the number of colleges and universities), others are subject to rapid variation (for example, demand for graduates in particular fields). A good evaluation system should be flexible and should respond quickly to the rapid changes.

h). Of Low Cost.

Here there are pressures in both directions: to push costs up or to keep them down. Since the state spends over one-half billion dollars on postsecondary education, there is pressure to spend at least some small percentage of that on evaluation procedures. But a mere two

percent of the higher education appropriation is over $6,000.000. Rough calculations show that this is far in excess of that required. Furthermore, creation of a large staff can result in "make work" to justify their own continuance. Hence one should be as economical as possible, while permitting the necessary work to be done well.

i). With No Undesired Impact on the Institutions Evaluated.

The procedures can have negative effect on the institutions in several ways. There is the nuisance effect of requiring excessive collection of data and filling out of forms, which may (especially at a small institution) seriously interfere with administration. The institutional program could be altered solely to receive a "high rating" in some aspect of the evaluation, perhaps at the cost of other educational benefits which were not recognized in the evaluation. The evaluation procedures should as far as possible avoid such negative effects.

j). Acceptability.

The procedures are of concern to the institutions and their staffs, to state governmental agencies and to the Legislature, also to the public. Hence they should be designed to be acceptable to all: to be recognized as necessary, fair and not unnecessarily burdensome.

PART V

A PROCESS FOR ASSESSMENT OF QUALITY

Although to some extent the assessment of educational quality is a subjective and judgmental issue, it is seen as essential that the educational community be responsive to the concerns of faculty, students, state legislators, and the public. If colleges and universities are not to be evaluated solely on the criteria of cost per student, degrees granted, and number of enrollees, some alternative process must be developed.

Similar concerns in the elementary and secondary sector were the motivating factors behind the development of the State Board of Education's accountability model, which is described as "a process, not a curriculum imposition."[1] It is clear that the governance structure of public higher education and the relationships between the State Board of Education and the institutions, differs from those for the local school districts. However, it can be seen as an appropriate role for the State Board of Education to provide the leadership in developing and recommending a process for the assessment of educational quality in public institutions of higher education. The institutions can judge for themselves the benefits of participating in such a process in comparison to existing methods of evaluation.

The suggested process for assessment of educational quality at the postsecondary level, and in particular at those institutions receiving support from the state, is outlined in the following sections of this report.

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[1] A Position Statement on Educational Accountability, Michigan Department of Education, Lansing, 1972.

1. Development of Goals. The first step in any evaluation process is the establishment of the criteria or standards against which performance is to be measured. The development and acceptance of appropriate goals for education for adults sets the end toward which efforts should be directed. Both the State Plan for Higher Education in Michigan (1969) and the report, The Common Goals of Michigan Education (1971) contain comprehensive statements of educational goals. Further specific development of goals for education for adults is currently underway within the Michigan Department of Education, and these goals should receive the careful review and hopefully acceptance at the institutional level, and to be incorporated in the institutional role statements.

2. Establishment of Objectives. Once a set of goals appropriate for the various segments of postsecondary education are developed and accepted, a series of objectives related to these goals can be identified. Development of objectives is seen as an institutional responsibility, consistent with each institution's unique role statement, program structure, student body, and resources. Objectives should be expressed in quantifiable or measurable terms, insofar as possible, and can be developed in a variety of ways, including use of a system of program budgeting.

3. Measuring Achievement of Objectives. There are a number of methods which can be utilized by the institutions to measure the degree to which its objectives are being achieved, and thus obtain a measure of the level of institutional quality. Some suggested methods of evaluation are discussed below.

a). Self-Evaluation.

This is the oldest form of evaluation, and it is still in use: Institutional heads or their representatives present their own

judgments on their institutional achievements and on their needs for future programs. The emphasis has in the past been on qualitative appraisals along with the essential facts on enrollments, staff and expenses.

b). Accreditation Visits.

Accreditation of institutions or of programs within institutions is now carried out by agencies such as the North Central Association or by professional associations for particular areas such as the National Architectural Accrediting Board. In each case visits are made every few years by teams of experts and reports are written summarizing strengths and weaknesses of the institution or program. If such reports were available to the state governmental agencies, and if they covered all institutions and programs with sufficient frequency, they would provide a means of evaluating the quality of higher education provided in Michigan.

c). Management Consultant Firms.

As a variation on accreditation visits and reports, the state could contract with an education-management consultant firm to provide needed studies and evaluations. These would probably emphasize management standards such as cost-benefit and might follow a system close to PBES, and would be appropriate in examining specific programs or issues.

d). Opinion of Students, Recent Graduates and Others

In these days of highly developed survey techniques, it would be natural to seek the opinion of various affected groups on the

quality and benefits of various aspects of higher education. Some natural groups would be present students after one or more years at an institution, recent or not-so-recent graduates, professionals in various areas, and parents of students. The possibilities are many and some years of experimentation might be needed to determine which groups to poll and what questions to ask.

e). Performance of Students on Standardized Tests.

Standardized tests have been much used in elementary grades, also for college entrance and for entering graduate study. Ideally one would like to test a "cohort" of students moving together through the same program to determine the "value added" by the educational process. If effective testing of this sort were available for many programs at many institutions across the state, one could compare different institutions as to their ability to provide education in specific areas. Even at basic levels, where programs are very similar across the state, such testing is not without pitfalls. For higher education, with its far greater complexity, success in a testing program would be much harder to achieve. However, it may be possible to test and make useful comparisons in limited subject areas; for instance, the National Board of Medical Examiners test scores.

f). State Agency Review.

It is a responsibility of the State Department of Education to conduct such studies or reviews as may be necessary to insure that an adequate level of quality is being maintained at all institutions.

4. Development of Alternative Means of Providing Services. Following the evaluation process outline in the previous section, there may be indications that objectives are not being achieved in a satisfactory manner, or by the most efficient or economical means. In such cases, institutions should be encouraged to reassess their programs and services and to develop possible alternatives to existing means of providing services.

The hallmark of Michigan higher education is its diversity, and the variety of methods whereby services are provided. This diversity should be encouraged and supported, insofar as it contributes to the achievement of statewide objectives.

5. Evaluation and Testing of Alternatives. If a change is proposed in programs or services, or the manner in which these are provided, it is an institutional responsibility to test and evaluate the alternatives.

6. Sharing of Recommendations for Improvement. When an institution has gone through this process, it should be encouraged to share the results. Information on how goals are served and where appropriate are modified to better meet the needs of the citizens of the state should be made available to other institutions and to the state, to the benefit of the entire system.

SUMMARY

This discussion has aimed at relating organizational goals and operational objectives to the total educational picture for adults in Michigan. These goals and objectives constitute the approach of the Department of Education as it serves to perform its function as the

executive arm of the State Board of Education; as a resource for other state agencies and other branches of government; and as a service agency for the citizens of Michigan. It is a role of the State Board of Education to provide leadership for public education, and it is a responsibility of each public institution to function in support of state-level goals as appropriate to its own individual role and scope of operation.

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